

REMARKS

The above-referenced patent application has been reviewed in light of the Office Action, dated August 16, 2000, in which: Claims 1-6 and 11-17 are rejected under 35 USC 102(e) as being anticipated by Murayama et al. (hereinafter "Murayama", US Patent No. 5,757,972); claims 7-10 and 19 are rejected under 35 USC 103(a) as being unpatentable over Murayama as applied to claims 1, 6 and 11, and further in view of Yuan et al. (hereinafter "Yuan", US Patent No. 5,821,986); and claims 18 and 20-29 are rejected under 35 USC 103(a) as being unpatentable over Murayama and further in view of Rosenberg et al. (hereinafter "Rosenberg", US Patent No. 5,832,115). Reconsideration of the above-referenced patent application in view of the following remarks is respectfully requested.

Claims 1-29 are now pending the above-referenced patent application. No claims have been cancelled, added, or amended.

The Examiner has rejected claims 1-6 and 11-17 under 35 USC 102(e) as being anticipated by Murayama. The rejection of these claims by the Examiner is respectfully traversed.

It is well-established that in order to establish a *prima facie* case of anticipation under 102 of the patent statute, the Examiner must provide prior art document that meets each and every element and limitation of the rejected claim. Therefore, even if a single element or limitation is not met by the asserted document, then the Examiner has not succeeded in establishing a *prima facie* case.

Applicants begin with claim 1. Claim 1 recites:

" A video processor system comprising:

a video coder, the video coder including the capability to generate an edge detection map along a predetermined direction for an uncoded frame that is to be coded."

According to the Examiner, "Murayama et al disclose[sic] a video processing system comprising:

A video coder (col2, line 68) the video coder including the capability to generate an edge detection map along a predetermined direction for an uncoded frame that is to be coded (col.10, lines 30-33)." However, this is not what the cited patent discloses.

Murayama describes a method for detecting a feature point of a given image, and then chain coding the feature point coordinates, the result of which is then multiplexed. Murayama does not disclose the creation of an edge map as disclosed in the present application, but rather refers to generating a list of coordinates of feature points of a given image. Applicants refer specifically to Column 3, lines 1-5, and Column 3, lines 31-37 of the Murayama patent.

... which are possible to decrease the total code quantity by decreasing the bit quantity required for coding of the coordinate information when the feature point of the input video signal is detected and then the coordinate of the feature point is chain coded. ...

Furthermore, thirdly the present invention provides the video signal coding method, comprising the steps of: detecting feature points of the input video signal (S1) by the canny edge detection method; performing chain coding (S33) of the coordinates of the feature points (S30) detected at the feature point detecting step...

It is respectfully asserted that the cited patent fails to meet the limitations of claim 1, as claim 1 discloses a video coder that is capable of generating a map, the map being materially different than the coordinate information disclosed in the Murayama patent. Just as an example, Applicants refer to page 10, lines 1-2, and page 13, lines 1-3 and lines 7-9 of the application.

In this particular embodiment, this frame or matrix of binary values comprises the binary-edge mask or edge detection map. ...

For example, in one embodiment, a sharpening or high pass filter may be applied on a pixel-by-pixel basis to those pixels indicating edge signal information in the corresponding edge detection map of the video frame. ...

For example, the edge detection maps each contain bits in particular locations. These bits provide information at the far end regarding the presence of edges in the original frame.

Although this is one particular embodiment, and the invention is not limited in scope to this embodiment, it is respectfully asserted that the cited patent clearly fails to meet each and every element and limitation of claim 1, and the allowance of claim 1 is respectfully requested.

Claims 2-5 depend from claim 1 and include all limitations. Therefore, these claims patentably distinguish from the cited patent for the same reasons as claim 1. It is respectfully asserted that these claims are in a condition for allowance.

Claims 6 and 11-17 patentably distinguish from the cited patent for reasons similar to claim 1. It is, therefore, respectfully asserted that claim 6 and claims 11-17 are in a condition for allowance.

The Examiner has also rejected claims 7-10 and 19 under 35 U.S.C. 103(a) as being unpatentable under Murayama as applied to claims 1, 6 and 11 above, and in further view of Yuan. The rejection of these claims is also traversed.

Applicants begin with claim 7. Claim 7 recites:

"The video processing system of claim 6, wherein the video processing system includes the capability to code the edge detection map for transmission via a communications channel along with an associated coded video frame."

According to the Examiner, "Murayama et al do[sic] not disclose a video processing system wherein the video processing system includes the capability to code the edge detection map for transmission via a communications channel along with an associated coded video frame, Yuan et al do[sic] disclose such a system (col.2, lines 62-64)." As indicated above, the rejection of this claim is respectfully traversed.

Assuming, only for the sake of legal argument, that these two patents could be combined, although Applicants have serious doubt regarding the ability to do so, there would still be elements of claim 7 not met by the combination of these two patents. Yuan relates to an improved method for video conferencing over a scalable network, and has no relation to simultaneous transmission of an edge detection map along with an associated coded video frame. In the cited lines of Yuan, the reference is to encoding an image, and decoding the image at another location on the network at a higher or lower resolution. There is no reference to edge detection, or transmission of an edge detection map along with an associated video frame. There is a reference to a difference image, but this difference image does not appear to relate at all to an edge map as disclosed in the application. It appears, in fact, that the Yuan patent does not relate to the present application at all, and does not contain any of the elements that are missing from the Murayama patent. It is, therefore, respectfully asserted that even a combination of cited patents fails to render claim 7 obvious, as there would be elements of the rejected claim still lacking in the combination. It is, therefore, respectfully asserted that claim 7 is in a condition for allowance.

The Examiner has rejected claims 8-10, but concedes that Murayama does not disclose the elements of claim 8 and 10, and makes no further arguments towards the 103(a) rejection. Applicants do not understand the Examiners basis for the rejection, however, arguments made concerning claim 1 above are relied upon for traversing a 103(a) rejection of claims 8 and 10, as these claims patentably distinguish from the cited patents for reasons similar to claim 1. It is, therefore, respectfully asserted that claims 8 and 10 are in a condition for allowance.

The Examiner has rejected claim 9, and stated that "Murayama et al disclose a video processing system wherein the video processing system includes the capability to code the edge detection map for storage along with an associated video frame (col. 7, line 24)." However, when referring to the cited lines, this is not what the cited patent recites.

The cited patent refers to a change point detecting circuit, which is presumably used in the flag process described in said patent. In the cited patent, the input video signal is stored in a frame buffer, but the cited patent does not refer to coding an edge detection map for storage along with an associated coded video frame. The cited patent lacks several of the elements of claim 9, and therefore, it is respectfully asserted that claim 9 is in a condition for allowance.

Claim 19 distinguishes from the cited patents for reasons similar to claim 7. It is, therefore, respectfully asserted that claim 19 is also in a condition for allowance.

The Examiner has rejected claims 18 and 20-29 under 35 USC 103(a), as being unpatentable over Murayama, and further in view of Rosenberg et al (US Patent No. 5,832,115, hereinafter "Rosenberg"). The rejection of these claims by the Examiner is respectfully traversed.

Applicants begin with claim 20. Claim 20 recites:

"An article comprising: a storage medium having stored thereon instructions capable of being executed by a system that when executed results in:

producing an edge detection map along a predetermined direction from the video frame prior to coding;

coding the edge detection map and the video frame."

According to the Examiner, "Murayama et al do[sic] not explicitly disclose an article comprising: a storage medium having stored thereon instructions capable of being executed by a system that when executed result in: producing an edge detection map along a predetermined direction from the video frame prior to coding; coding the edge detection map and the video frame, Rosenberg et al disclose[sic] such a system (col. 10, lines 16-39)." Assuming, only for the sake of legal argument, that these two patents could be combined, although Applicants have serious doubts regarding the ability to do so, there would still be elements of claim 20 not met by the combination of these two patents.

Rosenberg relates to image recognition, and does not refer to a method for coding an edge detection map and video frame prior to transmission as disclosed in the present application. The lines of the patent cited by the Examiner refer to the specific storage techniques for subroutines and special-purpose routines that do not result in producing an edge detection map as disclosed in the present application. It does not appear that the cited patent relates at all to the present application. The Examiner has already conceded that Murayama does not disclose a method for coding an edge detection map and video frame prior to transmission and, therefore, it is respectfully asserted that even a combination of the cited patents would fail to meet all the elements of claim 20. It is, therefore, respectfully requested that the Examiner withdraw his rejection of this claim.

Claims 18, and 21-29 either depend upon or patentably distinguish from the cited patents for reasons similar to claim 20. It is, therefore, respectfully asserted that these claims are in a condition for allowance.

CONCLUSION

In view of the foregoing, it is respectfully asserted that all claims pending in this application are in condition for allowance. If the Examiner has any questions, he is invited to contact the undersigned at (503) 264-9427. Reconsideration of this patent application and early allowance of all the claims is respectfully requested.



Respectfully submitted,

A handwritten signature in cursive script, reading "Howard A. Skaist".

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